

WHAT IS CLAIMED IS:

1. A lever-type connector (30) having a housing (31) for accommodating terminal fittings (33) that can be brought into contact with mating terminal fittings (22), the housing (31) being connectable with a mating housing (21), and at least one lever (38) rotatably supported thereon, wherein:

at least one cam means (39) on the lever (38) for engaging at least one mating cam means (24) on the mating housing (21) and a supportable portion (40) on the lever (38) for slidable support on a supporting portion (47) of a supporting member (46) to permit rotation of the lever (38);

the housing (31) is displaced to approach the supporting member (46) as the housings (31, 21) are connected, and the supportable portion (40) is moved relative to the supporting portion (47) to rotate the lever (38), thereby engaging the cam means (24) with the mating cam means (39) to exhibit a cam action;

a moving plate (35) formed with positioning holes (42) for receiving and positioning the terminal fittings (33), the moving plate (35) being mounted in the housing (31) for movement substantially along a connecting direction (CD).

2. The lever-type connector of claim 1, wherein the moving plate (35) has at least one moving plate cam means (44) for engaging the cam means (39) and moving the moving plate (35) forward and backward in the housing (31) as the lever (38) is rotated.

3. The lever-type connector of claim 1, wherein the housing (31) has a receptacle (32) that substantially surrounds the terminal fittings (33) and into which a mating housing (21) is fittable.

4. The lever-type connector of claim 3, wherein the moving plate (35) is mounted into the receptacle (32) for movement forward and back substantially along a connecting direction (CD).

5. The lever-type connector of claim 1, wherein the cam means (39) for engaging the mating cam means (24) on the mating housing (21) is at one end of the lever (38), and the supportable portion (40) is at an end of the lever (38) opposite the cam means (39).

6. The lever-type connector of claim 1, wherein the housing (31) is displaced to approach the supporting member (46) and the supportable portion (40) is slid on the supporting portion (47) to rotate the lever (38) as the two housings (31, 21) are connected.

7. The lever-type connector of claim 1, wherein a rotary shaft (37) of the lever (38) is at a position on a lever-mounting surface of the housing (31) displaced from a middle along a direction substantially normal to the connecting direction (CD).

8. The lever-type connector of claim 7, wherein a distance from the rotary shaft (37) to the supportable portion (40) exceeds a maximum distance from the rotary shaft (37) to the cam means (39).

9. A lever-type connector (30) comprising:

a frame (46) mounted to a support for movement in a transverse direction (TD), the frame being formed with cam grooves (47);

a housing (31) movable in the frame (46) along a connecting direction (CD) transverse to the transverse direction (TD), the housing (31) having a receptacle (32) and support shafts (37);

terminal fittings (33) having tabs (33a) projecting into the receptacle (32);

a moving plate (35) mounted in the receptacle (32) for movement along the connecting direction (CD), the moving plate (35) having positioning holes (42) for receiving and positioning the tabs (33a), cam pins (44) projecting from the moving plate (35);

a mating housing (21) connectable with the housing (31) along the connecting direction (CD), cam pins (24) projecting from the mating housing (21) and being engageable with the cam pins (44) of the moving plate (35); and

levers (38) rotatable about the support shafts (37) of the housing (31), the levers (38) each having a cam groove (39) engaging the cam pins (24, 44) on the mating housing (21) and on the moving plate (35), the levers (38) further having cam pins (40) engaging the cam grooves (47) in the frame (46), whereby movement of the mating housing (21) and the housing (31) towards one another rotates the levers (38) and generates a cam action between the cam pins (24, 44, 40) and the respective cam grooves (39, 47) for moving the housing (31) relative the frame (46) and for moving the moving plate (35) and the mating housing (21) relative to the receptacle (32) along the connecting direction (CD).

10. The lever-type connector of claim 9, wherein the cam groove (39) is at one end of each said lever (38), and the cam pin (40) is at an end of the respective lever (38) opposite the cam groove (39).

11. The lever-type connector of claim 10, wherein the support shafts (37) are at positions on a lever-mounting surface of the housing (31) displaced from a middle along a direction substantially normal to the connecting direction (CD).

12. The lever-type connector of claim 11, wherein a distance from the support shaft (37) to the cam pin (40) exceeds a maximum distance from the support shaft (37) to the cam groove (39).

13. The lever-type connector of claim 12, wherein the levers (38) are mounted on opposite respective sides of the housing (31) and are configured to rotate in opposite respective directions during connection and disconnection of the housing (31) and the mating housing (21).

14. The lever-type connector of claim 13, wherein the levers (38) are at non-symmetrical positions on the respective sides of the housing (31).